

**DECLARATION OF DR. CHIRINJEEV KATHURIA**

I, DR. CHIRINJEEV KATHURIA, state as follows:

1. I am the Chairman of PlanetSpace Inc. I co-founded PlanetSpace in 2005, and have been employed with the company since that time.
2. PlanetSpace, which is headquartered in Chicago, Illinois, focuses on the development of a broad spectrum of commercial space services that include cargo and crew to the International Space Station, point-to-point global travel, space tourism, and satellite orbital delivery.
3. In 2007, PlanetSpace entered into an unfunded Space Act Agreement with the National Aeronautics and Space Administration ("NASA") to facilitate the commercialization of Low-Earth-Orbit as part of NASA's Commercial Crew and Cargo Program. Under this Space Act Agreement, NASA shares information that helps PlanetSpace understand, *inter alia*, the project requirements for space station crew and cargo transportation, launch vehicles, and spacecraft. PlanetSpace uses such information to develop the vehicles, systems, and operations needed to transport crews and cargo to and from a low-Earth orbit destination (such as the Space Station).
4. Prior to PlanetSpace, I was a founding director in MirCorp BV, the world's first commercial enterprise to privately launch and fund manned space programs. MirCorp was the first company to obtain a commercial lease agreement for an orbiting manned space station (December, 1999). In addition, MirCorp was the first, and to date only, privately funded manned expedition to a space station and conducted the first privately funded cargo resupply mission in space.

5. I hold Bachelor of Science and Doctor of Medicine degrees from Brown University, and a Master of Business Administration degree from Stanford University.

6. I submit this declaration in support of PlanetSpace's protest of NASA's award of two 6-year contracts, each with a minimum value of over \$1 billion, for commercial resupply services to the Space Station. These awards were made to Space Exploration Technologies Corporation ("SpaceX") and Orbital Sciences Corporation ("OSC").

**I. BACKGROUND ON THE CRS PROCUREMENT.**

7. In 2010, NASA intends to end the current Space Shuttle program, and. NASA's planned long-term replacement for the Space Shuttle is the Ares rocket lift system and Orion spacecraft. However, I understand that Ares and Orion are unlikely to be ready for launch until 2015.

8. On April 14, 2008, NASA issued Request for Proposals ("RFP") No. NNJ08ZBG001R, which sought proposals for a contract to perform space transportation services and to supply cargo to the Space Station from January 1, 2009 through December 31, 2015, the Space Station Commercial Resupply Services contract (the "CRS contract"). PlanetSpace, SpaceX, and OSC submitted proposals in response to this RFP.

**A. PlanetSpace's Proposal**

9. For its proposal, PlanetSpace assembled a team of high accomplished partner companies (the "PlanetSpace Team") that, along with PlanetSpace, brought together the necessary expertise in the design and manufacturing of components and the delivery of services for the CRS contract.

10. The PlanetSpace Team includes PlanetSpace, Lockheed Martin Space Systems Company ("Lockheed"), Alliant Techsystems, Inc. ("ATK"), and The Boeing Company ("Boeing"). Lockheed, ATK, and Boeing are all NASA Human Spaceflight contractors that

have made significant independent research and development investments in space transportation systems.

11. For the PlanetSpace Team, PlanetSpace ensures that the financial management, services execution, and future business of the CRS enterprise are integrated. Lockheed acts as program executive and leads the development, production, and operation of the Orbital Transfer Vehicles. ATK provides the Athena III Launch Vehicle and Ground Segment. Boeing provides cargo carrier development, cargo integration services, and Space Station integration operations support. Employees from all four companies staff the PlanetSpace Team in alignment with their assigned areas of responsibility.

**B. Evaluation of the Proposals and Contract Awards**

12. On September 8, 2008, NASA notified PlanetSpace that NASA had included PlanetSpace's proposal in the competitive range. After conducting discussions, NASA invited PlanetSpace to submit a Final Proposal Revision, which revision PlanetSpace submitted on November 10, 2008. On December 23, 2008, NASA notified PlanetSpace that NASA had selected SpaceX and OSC for CRS contract awards.

13. After NASA debriefed PlanetSpace on January 9, 2009, PlanetSpace protested the contract awards to SpaceX and OSC at the Government Accountability Office ("GAO") on January 14, 2009. During the GAO protest, NASA overrode the automatic stay of contract performance.

14. On April 22, 2009, the GAO issued a decision denying the protest. Following the GAO decision, PlanetSpace and NASA engaged in extensive discussions and correspondence in an effort to resolve this controversy. Such efforts ultimately proved unsuccessful, leading to the initiation of PlanetSpace's protest at the U.S. Court of Federal Claims.

**II. PLANETSPACE WILL SUFFER SERIOUS AND IRREPARABLE HARM IF IT IS NOT AWARDED A CRS CONTRACT.**

15. As explained in further detail below, if PlanetSpace were not to receive a CRS contract, (1) it will not be able to retain several of its most valuable employees and its cooperative relationships with Lockheed, ATK, and Boeing, and (2) its long-term viability as a going concern will be seriously threatened.

16. For these reasons, PlanetSpace will suffer significant and irreparable harm if it is not awarded a CRS contract.

**A. Harm to PlanetSpace's Ability to Retain its Own Employees and its Cooperative Relationships with Lockheed, ATK, and Boeing.**

17. PlanetSpace's core value comes from the vast knowledge and experience of its personnel. Our team is made up of individuals with decades of technical operations, general management, and business development experience within the aerospace and engineering industries.

18. I know that since NASA's decision to award CRS contracts to SpaceX and OSC, members of the PlanetSpace team have been approached to leave PlanetSpace. If these invaluable members of PlanetSpace's Team were to leave, PlanetSpace would lose the benefit of their talents and the specific knowledge that they have amassed during their time at PlanetSpace. PlanetSpace would suffer irreparable harm with regard to its existing development efforts and its ability to compete in future NASA procurements.

19. In addition, Lockheed, ATK, and Boeing are indisputably among the most highly experienced aerospace companies in the world. Each has a long and successful relationship with NASA.

20. PlanetSpace teamed with Lockheed, ATK, and Boeing on an exclusive basis for the CRS procurement. Through this teaming arrangement, PlanetSpace sought to establish a long-term, cooperative relationship with each company. It was PlanetSpace's intention for this relationship to grow with the CRS contract and continue into the future with other NASA procurements. Through these relationships, PlanetSpace sought to further develop its commercial space efforts and find new business opportunities.

21. If PlanetSpace is not awarded a CRS contract, I believe the prospects are quite high that at least one (if not all) of PlanetSpace's Team members will cease working with PlanetSpace. PlanetSpace would suffer irreparable harm from losing one or more of its key teaming partners for future procurements.

**B. Harm to PlanetSpace's Long-Term Viability.**

22. The CRS procurement offered bidders at least two significant financial benefits. First, like most Government contracts, a CRS contract awardee can expect to recognize at least part of the contract revenue as profit. Second, a CRS contract awardee can expect to perform substantial Government-funded research and development during performance of the CRS contract.

23. As described more fully below in Paragraph 28, PlanetSpace would have derived substantial revenue from a CRS contract. The loss of this anticipated revenue would be a significant blow to PlanetSpace's long-term viability, particularly its ability to fund new research projects and attract new investors. In addition, the PlanetSpace Team has spent approximately [REDACTED] on independent research and development efforts related to the CRS procurement. Without a CRS contract, the PlanetSpace Team will not be able to recover this sizable investment.

24. In addition, if PlanetSpace is not awarded a CRS contract and SpaceX and OSC are permitted to continue performance on their CRS contracts, SpaceX and OSC would gain an unfair competitive advantage from NASA's procurement error beyond many millions of dollars in funding. For example, SpaceX and OSC would have gained time to improve their CRS processes and their design and development effort, thereby improving their understanding of the job and allowing them to reduce their risk in preparing future NASA proposals. PlanetSpace, on the other hand, would not have had the opportunity of such NASA-funded "risk mitigation."

25. In order to "catch up" to the "head start" that SpaceX and OSC would have obtained from having been able to perform their CRS contracts, PlanetSpace would need to borrow and spend significant amounts of money beyond what it had originally budgeted and secured from investors. Such a strain on PlanetSpace's financial resources would also result in irreparable harm.

**III. PLANETSPACE OFFERED THE SAME SERVICES THAT OSC RECEIVED A CRS CONTRACT TO PROVIDE, BUT PLANETSPACE'S OFFER WAS SIGNIFICANTLY LESS EXPENSIVE.**

26. NASA's February 10, 2009 Determination to Continue Performance of the SpaceX and OSC contracts, issued in connection with PlanetSpace's GAO protest, indicates that SpaceX and OSC were each awarded a contract to provide 20,000 kg (or 20 MT) of pressurized upmass under CLIN 001AA of the RFP. Although SpaceX's contract included 8,300 kg (or 8.3 MT) of unpressurized upmass under CLIN 001AB of the RFP, OSC's contract did not include any unpressurized upmass. I further understand, from publicly available material, including a

June 17, 2009 presentation by Michael Suffredini, NASA's Space Station Program Manager,<sup>1</sup> that OSC's contract did not include any downmass under CLIN 001AC.

27. I also understand, from my review of a December 23, 2008 press release issued by OSC<sup>2</sup> and NASA's February 10, 2009 Determination to Continue Performance, that the expected value to OSC of this 20,000 kg of cargo transportation, which will occur between 2011 and 2015, is \$1,885,450,000.

28. PlanetSpace's proposal included a bid to provide the very same services as OSC has been asked to provide, *i.e.*, pressurized upmass under CLIN 001AA between 2011 and 2015. [REDACTED]

[REDACTED] it is possible to calculate the PlanetSpace's price for the same services that OSC has been asked to provide. Based on the following calculation, PlanetSpace's proposal for 20,000 kg of pressurized upmass between 2011 and 2015 (*i.e.*, the contracted for services that were awarded OSC) would have cost NASA approximately [REDACTED]

[REDACTED]

29. The calculation above utilizes an average of the prices proposed by PlanetSpace for each year. [REDACTED]

<sup>1</sup> [http://www.nasa.gov/pdf/361840main\\_13a%20-%20UPDATED%20Augustine%20CRS%20final.pdf](http://www.nasa.gov/pdf/361840main_13a%20-%20UPDATED%20Augustine%20CRS%20final.pdf).

<sup>2</sup> <http://www.orbital.com/NewsInfo/release.asp?prid=680>, at pp. 6.

[REDACTED]

[REDACTED]

30. Thus, according to the calculation above, NASA could have purchased the same 20,000 kg of upmass services from PlanetSpace for approximately \$613,658,000 less than what it has contracted to pay OSC.

**IV. TO DATE, NASA HAS NOT PAID MORE THAN 3.18% OF THE TOTAL VALUE OF THE SPACEX AND OSC CONTRACTS.**

31. Although I do not have specific information about the actual payments that NASA has made to SpaceX and OSC under the CRS contracts, it is possible to calculate the maximum amount of money that could have been spent by NASA on the two contracts to date.

32. Section II.A.6.4 of the RFP provides: "Mission milestone payments made for resupply missions prior to completion of ISS integration, shall not exceed 30% of the cost of that mission." In other words, before the contractor completes ISS integration, NASA's mission milestone payments for a given mission may not exceed thirty percent of the total cost of that mission.

33. Neither SpaceX nor OSC has completed ISS integration, and of course, each is still working on its first mission. Therefore, pursuant to Section II.A.6.4 of the RFP, NASA could not possibly have spent more than thirty percent of the cost of each company's first missions.

34. NASA's February 10, 2009 Determination to Continue Performance indicates that the SpaceX contract calls for NASA to pay \$1,589,261,925 for 12 CRS missions, and the OSC contract calls for NASA to pay \$1,885,450,000 for 8 CRS missions. The average price per mission is thus \$132,438,493.75 under the SpaceX contract, and \$235,681,250 under the OSC contract.



35. Using this average price per mission, the total combined cost of SpaceX's first mission and OSC's first mission should be approximately \$368 million. Because NASA cannot pay more than thirty percent of the total mission cost until ISS integration has been completed and neither contractor has completed ISS integration, the maximum amount of money spent to date is approximately \$110.4 million. This amount is approximately 3.18 percent of the \$3,471,711,925 total value of the SpaceX and OSC contracts (\$1,589,261,925 + \$1,885,450,000).

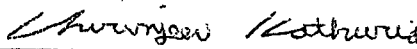
**V. THE SMALL BUSINESS ADMINISTRATION HAS GRANTED MANY CERTIFICATES OF COMPETENCY FOR SMALL BUSINESSES WHOSE RESPONSIBILITY HAS BEEN QUESTIONED BY A PROCURING AGENCY.**

36. PlanetSpace is a small business. When a federal agency believes that a small business is not responsible -- that is, is not capable of performing a proposed government contract -- the small business is entitled to ask the Small Business Administration whether the small business is capable of performing the contract. If the Small Business Administration is satisfied that the small business is responsible, it will grant a Certificate of Competency.

37. In 2008, the Small Business Administration issued eighty-nine Certificates of Competency to small businesses. During the first half of 2009, the SBA issued forty-nine Certificates of Competency. These statistics were provided by Major Clark III, Procurement Assistant Advocate in the Small Business Administration Office of Advocacy.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Executed this 27th day of August, 2009.

  
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Dr. Chirinjeev Kathuria